



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

Handwritten signature

D4379-5
Job Sheet 169240



Part No: **D4379-5**

Job Qty: 60 ea

Part Name: Wearplate Cup



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 12/5/17

Job Tracking No:

Created By: Linda Lacelle

Due Date: 12/15/17

Type: SOLD

Description:

Note: DWG REV D SHEET 3 IPP REV:A NEW ISSUE 14-04-01 JLM VERIFIEWD BY:DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	60 Ea		12/14/17	0.00	0.00	Start Up Machining-3		
100	Doosan	60 pcs		12/15/17	0.02	7.76	Doosan		
120	QC	60 pcs		12/15/17	0.00	0.00	QC8		<i>F.K 12-12-12</i>
130	Packaging	60 pcs		12/15/17	0.00	0.00	Packaging3-2		<i>EL</i>
140	QC21-SA	60 Ea		12/15/17	0.00	0.00	QC21		

Part Op 100 - turn as per Dwg and folio FB300
Descriptions: 130 - LOCATION: WA001

DAS
21
9-99

DEC 13 2017

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	M304R1.000	2	28	0	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Wearplate Cup	0.875Inches + 0.000 - 0.005	0.875 0.870	Diameter	
2	Wearplate Cup	0.266Inches + 0.006 - 0.001	0.272 0.265	Diameter	
3	Wearplate Cup	0.466Inches ± 0.010	0.476 0.456		
4	Wearplate Cup	0.353Inches ± 0.010	0.363 0.343		
5	Wearplate Cup	0.031Inches ± 0.010	0.041 0.021		
6	Wearplate Cup	45.000Degrees ± 0.500	45° 44.500	Angle	
7	Wearplate Cup	0.200Inches ± 0.010	0.210 0.190		
8	Wearplate Cup	0.507Inches ± 0.010	0.517 0.497		

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

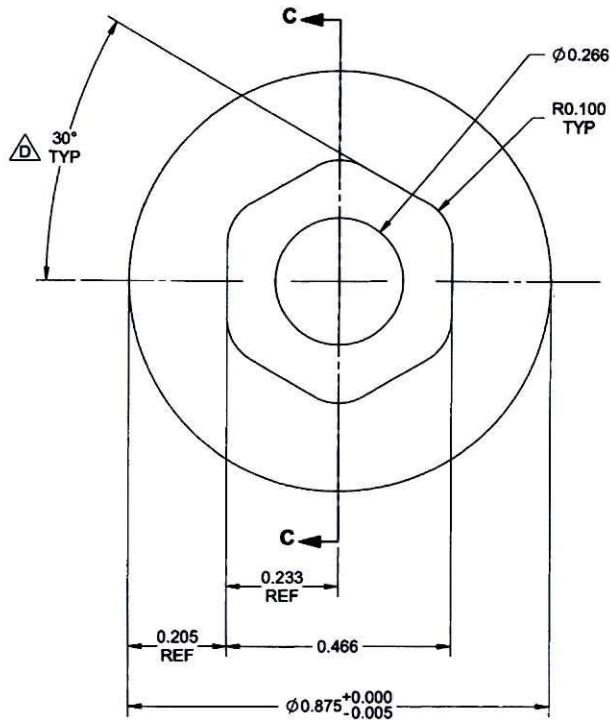


QA Closed: _____ Date: _____

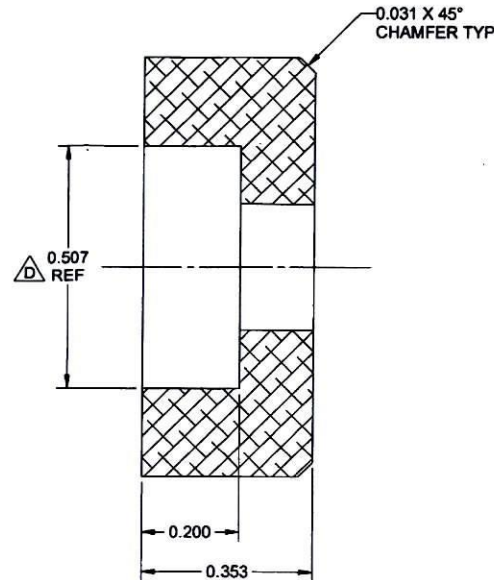
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____ Date : _____ Description _____	DISPOSITION Rework ☐ Scrap ☐	AGAINST DEPARTMENT/PROCESS Skid-tube Machining ☐ Cross tube Small Fab ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Store/Packaging Supplier ☐ Engineering Quality Other ☐	 S020869 Wearplate Cup PART NO: D4379-5 Revision: Operation: Start up Operation Change No: Mfg Date: 12/12/17 Job No: 169240																																																																																																																		
Root Cause <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Environment</td><td>☐</td><td>No Re-vel</td><td>☐</td></tr> <tr><td>Design</td><td>☐</td><td>Operator</td><td>☐</td></tr> <tr><td>Doc/Data</td><td>☐</td><td>Offset/Setup</td><td>☐</td></tr> <tr><td>Equip/Tooling</td><td>☐</td><td>Supplier</td><td>☐</td></tr> <tr><td>Handling/Pre</td><td>☐</td><td>Training</td><td>☐</td></tr> <tr><td>Material</td><td>☐</td><td>Use for Testing</td><td>☐</td></tr> <tr><td>Internal Transport</td><td>☐</td><td>Poor Information</td><td>☐</td></tr> <tr><td>Tribal Knowledge</td><td>☐</td><td>Rushing</td><td>☐</td></tr> <tr><td>LOA</td><td>☐</td><td>Product Improvement</td><td>☐</td></tr> <tr><td>Substation</td><td>☐</td><td>Process Improvement</td><td>☐</td></tr> <tr><td>Past Expiry Date</td><td>☐</td><td>Manufacturing Process</td><td>☐</td></tr> <tr><td>Misidentified</td><td>☐</td><td>Past Due</td><td>☐</td></tr> </table> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Bending</td><td>☐</td><td>Set-up</td><td>☐</td></tr> <tr><td>Centre Not Concentric</td><td>☐</td><td>BOM/Route</td><td>☐</td></tr> <tr><td>Cracks</td><td>☐</td><td>Broken/Damage/Defect</td><td>☐</td></tr> <tr><td>Crimp/Kink/Ripple/Wave</td><td>☐</td><td>Inspection Incomplete/Unqualified</td><td>☐</td></tr> <tr><td>Cuffs</td><td>☐</td><td>Contamination</td><td>☐</td></tr> <tr><td>Crushing</td><td>☐</td><td>Countersink</td><td>☐</td></tr> <tr><td>Heat Treat</td><td>☐</td><td>Cut Too Short</td><td>☐</td></tr> <tr><td>Wave/Twist in Tube</td><td>☐</td><td>Instructions Incomplete/Unclear</td><td>☐</td></tr> <tr><td>Marks/Chatter</td><td>☐</td><td>Drill Holes</td><td>☐</td></tr> </table> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">s/Surge</td> <td style="width: 33%;">☐</td> <td style="width: 33%;">Positioned Wrong</td> </tr> <tr> <td>gram</td> <td>☐</td> <td>Outside Dimensions</td> </tr> <tr> <td></td> <td>☐</td> <td>Over/Under tolerance</td> </tr> <tr> <td></td> <td>☐</td> <td>Part Incorrect</td> </tr> <tr> <td></td> <td>☐</td> <td>Part Lost/Missing</td> </tr> <tr> <td></td> <td>☐</td> <td>Part Moved</td> </tr> <tr> <td></td> <td>☐</td> <td>Drawing</td> </tr> <tr> <td></td> <td>☐</td> <td>Finish</td> </tr> <tr> <td></td> <td>☐</td> <td>Misread</td> </tr> <tr> <td></td> <td>☐</td> <td>Turning Sequence</td> </tr> </table>				Environment	☐	No Re-vel	☐	Design	☐	Operator	☐	Doc/Data	☐	Offset/Setup	☐	Equip/Tooling	☐	Supplier	☐	Handling/Pre	☐	Training	☐	Material	☐	Use for Testing	☐	Internal Transport	☐	Poor Information	☐	Tribal Knowledge	☐	Rushing	☐	LOA	☐	Product Improvement	☐	Substation	☐	Process Improvement	☐	Past Expiry Date	☐	Manufacturing Process	☐	Misidentified	☐	Past Due	☐	Bending	☐	Set-up	☐	Centre Not Concentric	☐	BOM/Route	☐	Cracks	☐	Broken/Damage/Defect	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Cuffs	☐	Contamination	☐	Crushing	☐	Countersink	☐	Heat Treat	☐	Cut Too Short	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Marks/Chatter	☐	Drill Holes	☐	s/Surge	☐	Positioned Wrong	gram	☐	Outside Dimensions		☐	Over/Under tolerance		☐	Part Incorrect		☐	Part Lost/Missing		☐	Part Moved		☐	Drawing		☐	Finish		☐	Misread		☐	Turning Sequence
Environment	☐	No Re-vel	☐																																																																																																																		
Design	☐	Operator	☐																																																																																																																		
Doc/Data	☐	Offset/Setup	☐																																																																																																																		
Equip/Tooling	☐	Supplier	☐																																																																																																																		
Handling/Pre	☐	Training	☐																																																																																																																		
Material	☐	Use for Testing	☐																																																																																																																		
Internal Transport	☐	Poor Information	☐																																																																																																																		
Tribal Knowledge	☐	Rushing	☐																																																																																																																		
LOA	☐	Product Improvement	☐																																																																																																																		
Substation	☐	Process Improvement	☐																																																																																																																		
Past Expiry Date	☐	Manufacturing Process	☐																																																																																																																		
Misidentified	☐	Past Due	☐																																																																																																																		
Bending	☐	Set-up	☐																																																																																																																		
Centre Not Concentric	☐	BOM/Route	☐																																																																																																																		
Cracks	☐	Broken/Damage/Defect	☐																																																																																																																		
Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐																																																																																																																		
Cuffs	☐	Contamination	☐																																																																																																																		
Crushing	☐	Countersink	☐																																																																																																																		
Heat Treat	☐	Cut Too Short	☐																																																																																																																		
Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐																																																																																																																		
Marks/Chatter	☐	Drill Holes	☐																																																																																																																		
s/Surge	☐	Positioned Wrong																																																																																																																			
gram	☐	Outside Dimensions																																																																																																																			
	☐	Over/Under tolerance																																																																																																																			
	☐	Part Incorrect																																																																																																																			
	☐	Part Lost/Missing																																																																																																																			
	☐	Part Moved																																																																																																																			
	☐	Drawing																																																																																																																			
	☐	Finish																																																																																																																			
	☐	Misread																																																																																																																			
	☐	Turning Sequence																																																																																																																			
OTHER : _____																																																																																																																					

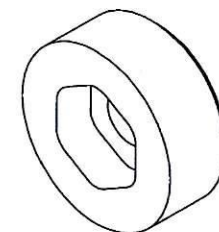
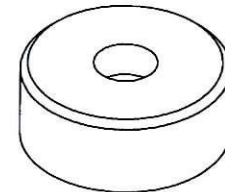
u/o 169240



D4379-5 WEARPLATE CUP



SECTION C-C



NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL ROUND BAR PER ASTM A276
REF. DART SPEC M304R
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.05 lbs

RELEASE
2016-02-23

APPROVED

DESIGN	AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ML	DRAWING NO.	REV. D
MFG. APPR.	JLM	D4379	SHEET 3 OF 4
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	WEARPLATE CUP	NTS
DATE	15.12.17	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

112

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
								QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																